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VALLOTA PURPUREA



SCAEVOLA RUBRIFLORA



JANUARY, 1887.

THE SOURCES OF horticultural information are varied and numerous, and probably no branch of industry in this country, except that of agriculture, receives so much attention, and is so thoroughly and constantly examined and discussed. Every one, young and old, has opportunities to acquire some practical wit on this subject, and it would be strange, therefore, if we should not, as a people, grow in that direction—that we do there is abundant evidence. And yet, taking the country through, their number is so small that it can hardly be said that we have a class of professional gardeners. Our real gardeners, in a professional sense, are mostly English, Scotch, or German. The young men of this country who are trained to horticultural work, do not have the training that those of a similar class in England and European countries receive. The conditions are different, and, not less so, the results. With each generation, however, we are unquestionably improving, and year by year more skillful work is performed in gardens and fruit grounds. With the wonderful fruit-producing capacity of the country, it is not strange that the strongest horticultural development is in this direction, and after this, if we are not mistaken, it is next most manifest in the love and care of house and garden plants among our women.

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By them it is fostered in the minds of the children, and finds its highest expression in the embellishment of rural grounds, suburban lawns and streets, and village parks.

Besides what our people learn by their limited home training and by direct observation, they acquire by other agencies. Of these, the most powerful and useful is, unquestionably, the press. The weekly and monthly visits of horticultural and agricultural journals, conveying, as they do, for the most part, accurate practical information, are grounding our people in the principles and practice of horticulture. Among the very class, however, which needs most this regular supply of information in regard to their special pursuits, there is a great lack. The most intelligent and enterprising avail themselves of it, while the least capable are neglectful of it. It would be difficult to find a rural community in which the circulation of ten times the number of horticultural and agricultural papers which are now taken, would not prove profitable. And the good of one is the good of all. At this season of the year, the subscription lists of horticultural literature should be liberally enlarged.

Horticultural books, of which there are many giving practical instructions on a great variety of subjects, are of

great value, and every private family and public library should be supplied with the best of them. The recorded knowledge in orderly form, as found in such books is so valuable that all interested should have convenient access to it. In this country the fruit grower, the farmer and the gardener, as well as professional men, are, in one sense, men of letters. Their education enables them to read and consult books to advantage, and they should not deprive themselves of these valuable aids. The leaders in every calling are readers, and those who would not lag far behind must read. The press moves the world.

Seedsmen and nurserymen's catalogues constitute a source of horticultural information at the present time, that is of great value. Here the beginner can learn about particular species and varieties of plants, and have access to a great amount of information of this character in a small compass. He is assured, too, that the plants which he may have learned something about elsewhere, are veritable entities and not imaginary objects. In these lists a great part of the horticultural vegetation of the world is focused into one clear, sharp view, which is sufficient to excite an interest and a desire to learn more.

The meetings of horticulturists in societies and conventions, has the tendency to increase a love of their pursuits, to promote good fellowship and a general helpfulness. There are now two societies of this character which have a continental range—the American Pomological Society, and the American Horticultural Society. The first of these has been of inestimable worth to the fruit-growing pursuit during its thirty-eight years of existence. In the language of its venerable president, the Hon. MARSHALL P. WILDER, "it is truly an American society, having, through all the vicissitudes of the past, held in the bonds of friendly intercourse for the promotion of one cause, the North, East, West, and the South, and every region where fruits can be grown on this continent. It has raised the standard of excellence by which our fruits are judged, discouraged the cultivation of inferior sorts, and thus educated the taste of the public for those of better quality, so that kinds once common in our markets have become

obsolete, and are now considered unworthy of propagation. In doing this portion of its work it has discarded, by general consent, more than six hundred varieties, either worthless, or superseded by better sorts." All honor to those who have so patiently and persistently labored in this society for the common good of our country.

A little more than a year and a half since, a flourishing society which had borne for a few years the name, Mississippi Valley Horticultural Society, by reason of its increased growth of membership from all parts of the country, changed its name and extended the range of its work, and is now known as the American Horticultural Society. Many of the most energetic and progressive horticulturists of every region are connected with this society, and it undoubtedly has before it a career of great usefulness for the whole of America. The Dominion of Canada is well represented in it, and, with the closer relations that are growing between us and our Mexican neighbors, it is not improbable that our horticultural influence will eventually be felt by them. This society, if properly conducted, and, as undoubtedly it will be, has a great work to perform. It can properly examine questions of very general interest, and of a wider range than local societies can well deal with. Its course is a free one, and much is to be hoped from it. The usefulness of the society can be greatly injured if it should be made subservient to the ambitious oratory of mere theorists, or that of scheming tradesmen, as such there are, seeking notoriety.

The state and county societies which come into close relationship with the people, exert a strong influence in helping and encouraging all, and by comparing and explaining methods of work. These societies should be promoted in all possible ways. Their number is increasing, and some of the most useful of them are county societies. To a great extent, as might be expected, their members are those who have a pecuniary interest to serve, but horticulture is not a pursuit that, in its nature, tends to give one sordid views, on the contrary, whatever branch of it we may specially favor, affords the opportunity and awakens a desire to know more of the wonders and

beauties of the growing world. Our state and national governments are doing beneficial work in the interests of horticulture. The various State Experiment Stations and the Department of Agriculture at Washington have employed some

of the best talent of the country in collecting information and solving questions for the benefit of gardeners and fruit-growers. Under these auspices we enter a new year, with good hopes for gardening prosperity.

THE TIGRIDIAS.



Many of our readers are acquainted with the handsome bulbous plants, *Tigridia Pavonia* and *T. conchiflora*, and our present purpose is to introduce to them more particularly than heretofore a comparatively new member of this family of bulbs; this is the White *Tigridia*, which occupies the central place in the accompanying engraving, the other figures representing *T. Pavonia* at the left, and *T. conchiflora* above, all being drawn at about one-half size. A brief description of the new flower appeared in our pages in 1882; that description was from a French source and was quite correct; it was to the effect that the flowers are of a dead white, or appearing

like mother-of-pearl, marked at the base of the divisions with large reddish-brown spots, a color which, upon a yellowish foundation, and with the white of the petals, produces a magnificent contrast. The styler column is in the form of a long tubular sheath, of a beautiful yellow color, terminated by three blades of a violet shade, enclosing within a style with white, slender divisions.

The history of this white flower is that it is a chance seedling, raised by M. HENNEQUIN, of Angers, France, in 1874, from seed of *T. Pavonia*; in accordance with its origin it has received the name of *T. Pavonia alba*. It was put into the trade in 1882, or spring of 1883. It is apparently as vigorous as the parent plant, its bulbs average as large or a little larger, the flowers are larger than those of either *Pavonia* or *Conchiflora*. Every one who sees this flower for the first time is surprised at its beauty. Planted in a group with the other varieties named above, it forms a combination when in bloom of dazzling splendor.

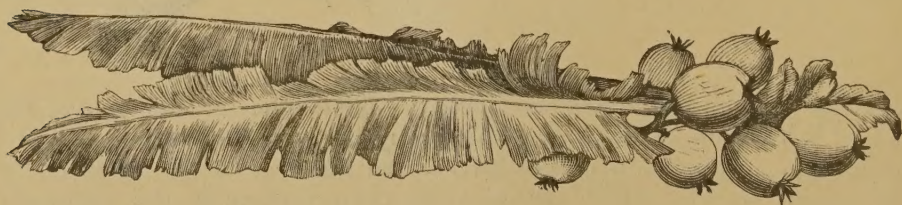
Although the older varieties are known to many, it may be interesting at this time to notice them briefly.

T. Pavonia is a native of Mexico, found there about a century since, and introduced to Europe by the way of Spain. In Mexico the plant is called *Ocoloxochitl*. Its specific name, *Pavonia*, or Peacock-like, is in allusion to the brilliancy of its coloring. The common name in French is *Queue de Paon*, or Peacock's Tail. The generic name, *Tigridia*, and our common name, Tiger Flower, are in allusion to the spotted and mottled appearance. The large divisions of the flower are bright scarlet with yellow at the base, and the smaller ones yellow spotted with purple; a re-

markably brilliant and showy flower. *Tigridia conchiflora*, or Shell Flower, is a bright yellow with scarlet and chocolate markings. This variety has been considered a true species, as it was found in Mexico in 1825. Its specific character has, however, been questioned, and by some it is considered a variety of *Pavonia*.

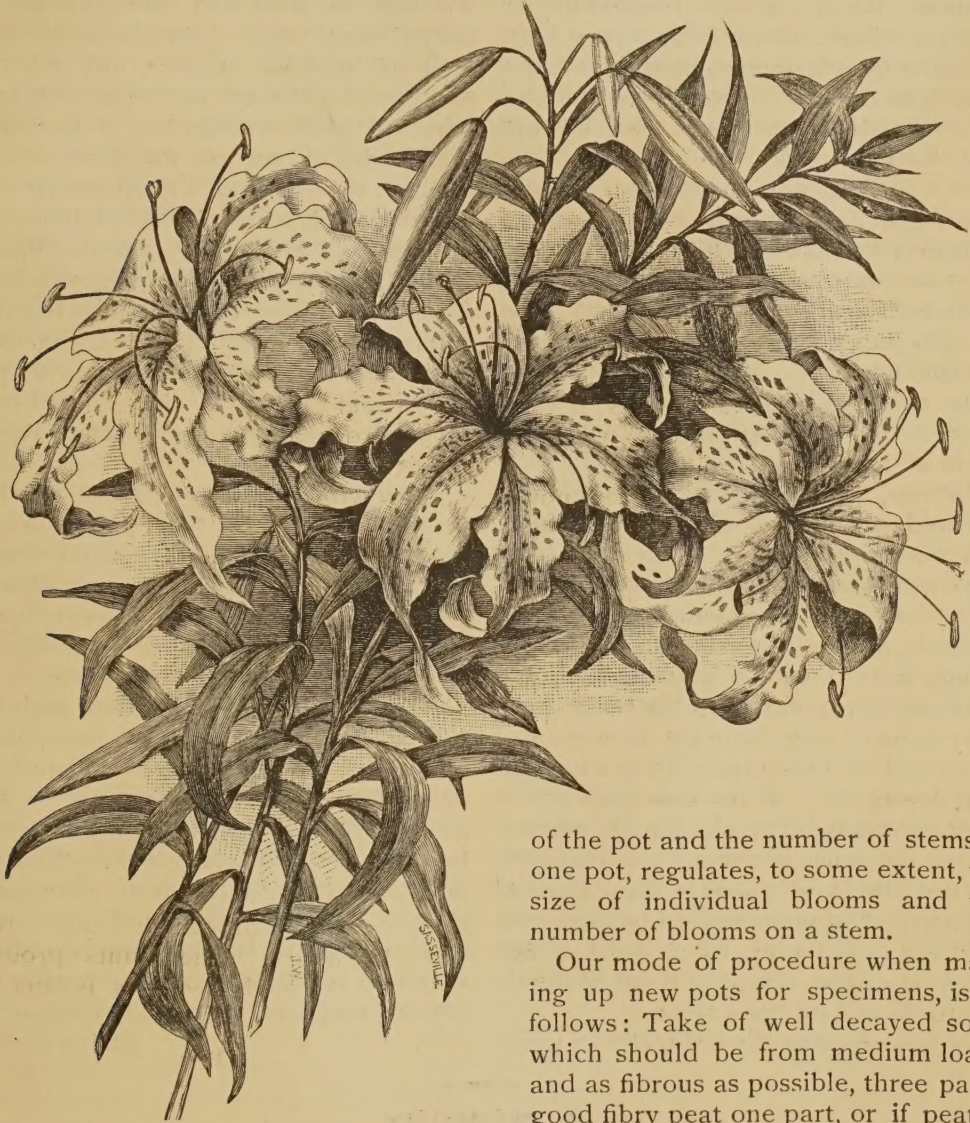
These flowers, so beautiful and brilliant, are exceedingly fugitive, lasting but a few hours after opening; nature thus showing a discreet reserve, else we might tire of what we can now only admire. But the transient character of the bloom is compensated by the fact that each bulb produces three or four flowers in succession.

As one might infer from its general form, the *Tigridia* belongs to the *Iris* family. It is tender in this climate. The bulbs do best in a sandy or light but rich soil, with a good supply of moisture. They should be set in the spring in the open border after the soil has become warm; they push up quickly, and make their growth in the early part of the season, and commence to bloom usually after midsummer, or about the same time as the *Gladiolus*. The bulbs are left in the ground until the early frosts come, or in milder climates until the foliage ripens, and are then lifted, dried off, and then hung up or placed in some receptacle secure from mice, and kept during winter where they cannot be touched by frost. In our own practice we strive to keep the temperature of their room from 40° to 45°. Each bulb will make several offshoots in a season, and, thus, if properly cared for, they increase rapidly. The plants produce considerable seed, and this is another and rapid means of multiplying them.



LILIUM LANCIFOLIUM IN POTS.

The varieties of *Lilium lancifolium* are very much better adapted for pot culture than most persons have any idea of; at least, so it would seem from the very few specimens grown in that way. There is so much difference between those one usually finds planted in the herbaceous border, or any where else in the open ground, and those well managed in pots, that they might almost be taken for major and minor varieties of a species. With strong bulbs, good care, and grown by the method I will describe, I have had them with from a dozen to thirty blooms on a stem, and from six to twelve stems in a pot, according to size. Of course, the size



of the pot and the number of stems in one pot, regulates, to some extent, the size of individual blooms and the number of blooms on a stem.

Our mode of procedure when making up new pots for specimens, is as follows: Take of well decayed sods, which should be from medium loam, and as fibrous as possible, three parts, good fibry peat one part, or if peat is

not to hand, leaf-mold well decomposed, and one part thoroughly rotted cow manure.

There are many who might grow Lilies very successfully for their windows or piazzas who may not have all these soils at their fingers' ends. If they live near woods, and can obtain, by first slightly pushing to one side the top and least decayed surface leaves, some good light top soil and leaf-mold, it will answer almost equally well. If a little sandy so much the better, if not a little sand may be added to give it the porosity which light or medium fibrous loam naturally has. If none but heavy loam can be obtained, use less of it, and more leaf-mold and sand, or decayed hops from the brewery (if unfortunately there is such an institution in the neighborhood,) may be substituted for the leaf-mold. In any case do not forget to add a fifth part of well decomposed cow or hot-bed manure, the former by all means if at all procur-

able. I think, with this range of materials, none need despair for want of soil.

The pots must be well drained with broken potsherds, or crockery of any kind will answer the purpose, placing first a large concave piece over the hole, next four or five rather smaller ones arranged around and over the first, then an inch or so of those still smaller, or, better still, charcoal broken to the size of Hickory nuts. Next, a double handful of the roughest of the soil, which, by the way, should be well broken up and mixed, but in no case sifted. Then about half fill the pot with the compost, and we are ready for the bulbs.

For a six-inch pot one strong bulb will be sufficient. In an eight-inch pot three bulbs may be placed. In a ten-inch pot, one in the center and five around the sides, and in twelve and fifteen-inch pots from nine to fifteen strong bulbs may be grown.

If sand is at hand a little may be placed under each bulb; press the bulb down firmly on its sandy cushion, and fill the pot to within an inch, or inch and a half, of the rim, water sufficiently to settle the soil, and set in a cool, shady position until the shoots appear. If kept cool the roots will have a good chance to start before much top growth takes place, which is a very important thing. Only enough water must be given to keep the soil from drying out, until the bulbs start. After growth has fairly set in more will be needed, and they must always be kept from drying out. When the flower buds show themselves, weak liquid manure may be given whenever water is required, and until the lower leaves show signs of maturity, when water should be gradually withheld, until finally, when most of the foliage is yellow, the pots, if out of doors, should be laid on their sides.

As they are perfectly hardy, these Lilies

may be grown out of doors entirely in a partially shaded place, protected from heavy winds, and either laid on their sides or put under cover during protracted rains.

I have supposed the bulbs would be started in spring; they may be pushed a little earlier, or kept a little longer dry, at discretion, according as they are wanted for succession, or to bloom all at once. Treated in this way the varieties of *Lilium lancifolium* form very noble as well as beautiful objects, and where a number of pots are grown some may be repotted each spring; but it is best to leave them in one pot for three seasons at least, removing all the old surface soil and replacing a mulch of old cow manure with a very little fibry loam. This, together with frequent watering with liquid manure, will give better results than disturbing and repotting the bulbs every year. If a third of the number of pots grown are repotted every third year, they will all get a shift as often as will be desirable.

For the decoration of terraces, piazzas, porches, conservatories, windows or churches, these and other Lilies treated in a similar manner will be found invaluable. Large pots used alternately with *Agapanthus umbellatus* on terraces and large piazzas have a grand effect.

I have seen *Lilium auratum* with thirty-five blooms on a spike, and an old number of the MAGAZINE has an extract of an account of one in the English *Journal of Horticulture* that produced fifty-four flowers. At any rate, the difference between either *auratum* or *lancifolium* grown high in pots, and the usual eighteen-inch or two-feet high specimens, with two to six flowers, one usually sees planted out, must be seen to be believed.

JAMES BISHOP.

A MEMORY.

A cottage and a garden spot,
A stretch of meadow green,
A pretty view of village homes,
Adown the hill is seen.

In fancy, once again, I stand
By garden gate alone,
And watch the sunset colors fade—
The stars come, one by one.

I hear the gently lowing cows,
The chickens peep, "Good night;"

See Lady Luna rise and shed
Abroad her calm clear light.

And with this scene there always comes
A fragrance sweet and rare,
From Sweet Brier Rose, that stately grows
And sheds its perfume there.

Long years have passed since last I saw
My childhood's happy home;
But Sweet Brier fragrance round me floats,
When back in dreams I roam.

F. A. R., *Willis, Montana.*

NOTES ON "IRON-CLAD" APPLES.

All of the northernmost States of the Union, and the Provinces of the Dominion, are becoming deeply interested in a class of tree fruits now known as "iron-clads," a name first brought into use, in this application, some fifteen or twenty years ago in Minnesota, where the greatest difficulty was experienced in finding any fruit trees which could endure the severity of the winter's cold. Northeastern New York, the Northern half of Vermont and of New Hampshire, and the Northern two-thirds of Maine, are in the cold belt where only the iron-clad tree fruits can be successfully grown. In addition to the true iron-clads there is a class, intermediate in hardiness, which may be grown in favored localities, or under peculiar conditions, farther North than others. So long as the known iron-clads were limited to a few sorts of inferior quality, the knowledge of these was important, for though it was not feasible to grow them on a commercial scale in the cold belt, they could be grown in a limited way for home use, under the shelter of buildings or of forests, or in protected village gardens.

It is only within the last ten years that hope has deepened into certainty that tree fruits exist which can be grown with entire success at least one hundred miles farther northward than heretofore. And not only this, but we also have assurance that this class of fruits contains a large number of varieties which are no way inferior in size, beauty and quality for every use to which such fruit is put further south. In fact, it seems to be demonstrated that the farther north Apples can be successfully grown, the finer they are in all their desirable qualities. The demonstration of this fact has not been received with entire satisfaction among those fruit growers who have hitherto found a profitable market for their orchard products in the "cold north," and there is still a strong disposition, which finds vent in the agricultural and horticultural press, to pooh-pooh the iron-clads. But it is a singular fact that, even though the first Apples of this class which became known to us are not of high dessert quality, but belong more especially to the culinary division of fruits, yet they stand to-day with more stars against their names, from more

States, than any others in the list of the American Pomological Society. I refer to the Astrachan, the Alexander and the Oldenburgh. And it is still more strange that these Russian Apples, so successful along the northern borders of the tree fruit region, have proved to have a wide range southward, and are esteemed on this continent all the way down to the Mexican Gulf.

As I am located in one of the severest sections of the Eastern States, so far as winter's cold is concerned,—the mountains of northeastern Vermont, just over the summit which divides the waters flowing to the Connecticut from the springs which feed the tributaries of the lower St. Lawrence,—I have, in my efforts to grow the tree fruits on a commercial scale, been compelled to test thoroughly every variety that promised to suit my purpose. I have been doing this now for twenty years, and in that time have tested hardly less than three hundred varieties of Apples, Pears, Plums and Cherries. I am now able to say that a large selection of all these fruits can be made which are as much at home in the cold belt as are the tenderer sorts in the most favorable spots. In this article I propose to name and describe, briefly, only the Apples which I have found most desirable, especially for the commercial grower.

SUMMER APPLES.

Summer Apples, in the cold north, means only August Apples, for we have nothing earlier; but our August Apples would be July Apples one hundred miles southward. Unquestionably the first among these is the family of "Transparent" Apples, of Russian origin, of which the now pretty well known Yellow Transparent is the type, and, I think, the most profitable to grow. The White Transparent, the Grand Sultan and the Charlottenthaler, are perhaps better in quality, but the first is rather small, and the second and third are not quite so sound in tree. In the same class are the Sweet Pear, (not sweet,) the Red Duck, (not red,) and several others which I have not grown. And here it may be well to note that the Russian Apples run in families, there being of many of them a number of closely related kinds. This, doubtless, arises from the fact that each province in

that great empire seems to have its favorite variety, often grown exclusively in large orchards, and consequently reproduced more or less exactly from seed. The Yellow Transparent (and this description applies as well to Grand Sultan, Sweet Pear and Charlottenthaler,) is a conical Apple, medium (sometimes large,) in size, a clear straw yellow in color, becoming ivory white if left long on the tree, and is, for an early Apple, a remarkably good keeper and shipper. The tree is upright, close-headed, a slow grower, very productive, and an annual bearer with garden culture, which it should receive. The trees can be grown quite closely, owing to their small size and compact heads.

The only other summer Apples of the iron-clad class which I have found useful are the Tetofsky and the St. Peters; but the former is chiefly valuable as a stock for top-grafting other varieties upon, not quite iron-clad such as Fameuse, Alexander and Red Astrachan. The St. Peters is not unlike Early Joe in size and coloring. It is a good dessert Apple and ships well, but its small size is against it, though the tree is very thrifty and productive.

FALL APPLES.

Among these the Alexander, the Oldenburgh and the Red Astrachan need no description, since nearly every one is familiar with them. They are quite generally regarded as the three best culinary Apples of their season, and it is a fact that they do find a large sale also for eating out of hand. The Oldenburgh is a perfect iron-clad, the Alexander less so, and Astrachan still less, but I find that, top-grafted upon the slow-growing and peremptorily early wood-ripening Tetofsky, they can both be profitably grown where the thermometer not unfrequently gets its mercury frozen in winter.

The Summer Harvey, an Apple the origin of which DOWNING says is unknown, has proved a perfect iron-clad, and an immensely productive tree. The fruit is from medium to large, roundish oblate, and colored much like Rhode Island Greening, but ripening to a straw yellow all through September. It is quite a popular Apple for retailing, and is of good flavor and texture, less acid than Astrachan. The tree is a prostrate, irregular grower, but exceedingly vigorous.

Among the newer Russians there are three very fine fall Apples that should be largely propagated, and to these should be added the large and beautiful North German Red Beitingheimer, which proves to be very hardy, if not quite iron-clad. The Russians referred to are, first, the Autumn Streaked, (No. 964 of the Department of Agriculture list of 1870,) which is a large, handsome, first-class dessert Apple, hardly inferior to Gravenstein. In season it closely succeeds Oldenburgh. Next, the Zolotoreff, (No. 275 of the same list,) a large, oval Apple, brilliantly striped with shades of dark and light red, also a little later than Oldenburgh, and of distinctly better dessert quality. Third, Golden White, (No. 978 of the same list,) a late fall fruit, now (November 1st,) in fine condition. This is large, greenish white, with stripes of red on the sunny side, soft of flesh and delicate of flavor.

WINTER APPLES.

Few of our people appreciate the fact that all of the Russian empire is north of 45°. This fact, giving shorter summers and autumns, makes many of the Russian Winter Apples poor keepers in this country, where the necessity for an iron-clad tree exists as low in Minnesota and Iowa as the latitude of New York City and Rome. But eastward, in Northern New York, New England and Canada, the conditions are not quite so trying.

I have found quite a number of the Russians good keepers, but so far the best keepers of that country yet ascertained are not of large size, though some of them—notably Borsdorf, (No. 402 Department list,)—are of fair size and excellent quality. Among the largest and best of this list is Longfield, (No. 161,) an Apple much like Maiden's Blush in appearance, but better in quality, which is reported to be a good keeper at the Iowa Agricultural College.

Among our native winter iron-clads by far the best known and most popular is the Wealthy, which varies in keeping from early winter in Iowa and Southern Minnesota to all winter in Northern Vermont, Maine and the Province of Quebec. In order to realize this to its fullest extent the Wealthy must be picked as soon as well colored, (here about September

20th,) and immediately placed in a cool cellar, carefully ventilated to preserve a low and equable temperature. By variations in this treatment I manage to have the Wealthy (of which I grow large quantities,) in prime eating order from November 1st to April 1st.

Among our native Apples very few of the long keepers are found to be iron-clads, or even very hardy. The Baldwin is nearly as tender as the Peach, succeeding well not more than fifty miles farther north. Other popular winter Apples, such as Rhode Island Greening, Roxbury Russet and Spitzenberg, are not much hardier, and Northern Spy exhibits but a slight gain over these. Even Ben Davis is quite uncertain with me, though it is possible to grow it top-grafted, with a great risk of losing the trees in our test winters. The Mann Apple is not so hardy as Ben Davis, not so handsome and no better in quality. The only truly

iron-clad long keeper which I have been able to grow successfully on a large scale is Scott's Winter, a native seedling of this town, medium in size, round, very brilliant red in color, keeping until June without difficulty, and, after March, very good in quality, being crisp and spicy, but rather too tart for some people. Prof. BUDD, of the Iowa Agricultural College, speaks very favorably of this Apple in a recent report. I also grow, to some extent, the Fameuse and McIntosh Red, but these, like nearly all lower Canada Apples, are much injured by the spot fungus. Among the later Russian importations much hope is entertained that the Anthony, (Antonovka,) an Apple said to much resemble Grimes' Golden, will prove valuable as a keeper of good desert quality. Several more of these are reported to be keepers, but we must wait for developments.

T. H. HOSKINS, M. D., *Newport, Vt.*

THE GOLDEN BARTONIA.

Bartonia aurea is a very showy, hardy annual plant, belonging to the natural order Loasaceæ. It is a native of California, whence it was introduced in 1853, and is a plant of somewhat succulent



character, growing about two feet in height, having ovate, lanceolate, hispid leaves, of a bluish-green color, and a branched, hispid stem. The flowers,

which are produced very freely during the summer months, are cup-shaped, and of a bright golden-yellow color, the center of the flower resembling a bunch of fine yellow silk. The flowers, which measure two and a half inches across, expand only during the middle of the day, and then present a very showy appearance.

When grown in perfection, the *Bartonia* is a fine plant, and although its habit and foliage are less attractive than many other annuals, yet in size and brilliancy of blossoms, it certainly is inferior to none. Like all other California annuals, the *Bartonia* is very apt to die off if its roots are exposed to the heat of the sun, and on this account the plants should be grown in masses, or as close together as possible, so that the ground may be covered with their leaves, or else the ground should be slightly covered with any light, littery material. It does best when given a deep, moderately enriched soil, and in the event of drought it is advisable to give a thorough watering occasionally, as the plants are apt to suffer during dry seasons. The *Bartonia* is usually considered difficult to transplant, and it is best to sow the seeds where it is intended the plants should bloom. The seed should be sown as

soon as the weather becomes warm and settled. In sowing place two or three seeds rather close together, and when all are up, remove all but one of the most promising plants. The generic name

was given in honor of Dr. B. S. BARTON, of Philadelphia, and the specific name alludes to the rich golden-yellow color of the flowers.

CHAS. E. PARNELL, *Queens, N. Y.*

THE POPULAR CHRYSANTHEMUM.

Without doubt, the most popular late autumn-flowering plant is the Chrysanthemum. As a plant for city culture it has no equal, for it thrives as well in the dust and smoke of the city as it does in the country, and requires very little care.

The culture of the Chrysanthemum is very simple. Small plants can be procured from any florist, and should be planted as early in April as possible. The Chrysanthemum is a gross feeder and requires a rich soil. The plants should



have the centers pinched out as soon as they are thoroughly established and have made a few

inches growth; this causes them to branch freely. The pinching operation should be continued as required until the first week in August, after which the flower buds commence to form. An occasional dose of liquid manure will be very beneficial. By October 1st the plants can be taken up and potted, being careful to shade and water them for a few days, after which they can be removed to the sitting-room or conservatory for blooming.

At this date, November 13th, Chrysanthemums are fully in bloom, Mastic blooming first, commencing October 15th, and followed in a few days by Mary Anderson, a beautiful single flower. Some of the late varieties, as President Arthur, Mary Salter and King of Primroses, are just coming into bloom.

The improvements in Chrysanthemums in the last few years has been wonderful. The following varieties are among the best of their color and class, all being good growers and very free flowering:

Single—Mrs. Robertson, creamy white; Mrs. C. L. Allen, deep rose; Peter Hen-

derson, pure yellow; Mary Anderson, white; James Y. Murkland, snowy white.

Japanese—Mr. W. Barr, bright crimson; Le Niger, deep maroon; Mastic, chamois buff; Elaine, pure white; Comedie, silvery blush.

Chinese—Frank Wilcox, golden amber; Sam Sloan, pale blush; Mrs. Todman,

rosy mauve; Tragédie, pink and blush; John Salter, bronze red.

Pompon — Black Douglas, crimson; Golden Cedo nulli, yellow; Snowdrop, white; Model of Perfection, pink; Exposition de Chalons, light rose, mottled white.

FRED.

MAKING THE BEST OF THE CASE.

One of the highest gifts that can be bestowed on man or woman is that of making the best of losses. Nobody needs to cultivate this tact more than farmers, who are compelled to meet many unforeseen misfortunes, and those which can't be reckoned upon. The margin for making a good turn of a bad matter is wider than we give nature credit for. For instance, this is a short Apple year, and the yield is poor at that. Half the Apples in these parts are too wormy for marketing, and in consequence rot on the ground. The enterprising few make them into cider, which is very poor usage. It is bad judgment to make inferior fruit into cider, when one poor Apple will spoil the flavor of a barrel. But it is all right to make mean Apples into Apple butter, for in paring and quartering the bad parts are removed, and the long stewing and spicing render the gnarliest, hardest fruit as eatable as prize Pippins. There is this to say, that what is left of wormy Apples after the worm traces are all cut out, is usually of higher flavor than common. If you want the best of the orchard take a bite of the sound side of a wormy Apple. Worms go for good living, and one might say, pick out the best fruit, only the fact that the egg is laid in the flower spoils that view of it.

The best way to work up a basket of poor fruit is to put a half peck at a time in a pan of water where they will wash themselves and pare from it. But don't bother paring poor Apples to begin. Rinse the Apple and quarter it without paring or coring. It is easy by a turn of the knife to cut out the bad heart of each quarter and the poor places on the rind, then you have only to pare the sound bit that remains. A bushel of fruit can be worked up this way much quicker than you can pare with a machine, core, and then trim them, and in a poor fruit year it pays to make the most you can of what

the harvest leaves to you. Drop the pared bits into a pan of clean water, for there will be worm specks adhering that need rinsing off. When a kettleful is ready ladle the fruit out and boil for Apple butter or sauce.

This year, all the nubbins of the orchard, the little unripe fruit that falls, can be worked up to swell the crop. Most of this immature fruit doesn't need paring or coring. The green skins and seeds boil away, and add a fine flavor. A wise orchardist will save half his crop by using the green Apples freely when they are no bigger than his thumb, thinning the fruit and turning the thinnings to account, for a very choice flavoring will be found in the earliest green Apples stewed, skins and seeds and all, when the infant seeds have a fine Bitter Almond taste. The wild Apples and Crabs are fine for every cooking use, to add flavor to sweet Apples, or such as have lost their flavor; and a firkin of Crab Apple butter is good to keep for this purpose.

Making Apple butter is almost one of the lost arts, but I have gathered the process from old experienced folks, and New York State farmers say that it is Apples pared, cored, cut and boiled in sweet cider till the whole is a dark, rich pulp, and the cider is reduced one-half. No sugar is needed, for the fruit furnishes its own sweetness. Half the Apples may be sour and half sweet, or all sweet, as one likes. It takes nearly two gallons of cider to make one of Apple butter, and spices are added, or not, to taste. I should spice it, the rule being one tablespoonful of Cinnamon and one-third of a teaspoonful of ground Cloves to each gallon of Apple butter, added when it is taken up, boiling hot. It may be kept in barrels, stone pots, or butter firkins and boxes. A clean second-hand butter firkin is a very good thing to keep many kinds of preserves or pickles in.

The great labor of making Apple butter is the constant stirring to keep it from burning, for which a stirrer is used, like a small wooden hoe with holes in the blade, and this is kept scraping the bottom of the kettle an hour or two before all is done. But if you make fruit butter in stone jars in the oven, all this labor is saved, and the flavor is far better. It is time the old brick ovens long built up or neglected, were brought into use again, for they have not their like for preserving and drying fruit. The prunings of the orchard will heat them, or a coal fire can be built in them, as bakers do, and when the heat lowers an oven can be filled with stone jars of fruit in cider, and left to its work till morning. Fruit so cooked is a rich red, clear and highly flavored as a preserve.

Apple butter does not "work," and is

highly salable, if it is not made in brass kettles or other metal. No matter how well kept the kettle, the taste will infallibly discover the difference between fruit cooked in metal or stoneware. The German dealers furnish huge stone and earthen pots for boiling Cabbage, which hold six or eight large heads, and these are excellent for making up fruit in quantities, and cheaper than metal. They can be used on the stove, and rarely burn any thing in them. Old farmers say the cost of a barrel of Apple butter is not over ten cents a gallon, and there are few neighborhoods even in the country where a good maker cannot sell his Apple butter at ten to fifteen cents a quart, realizing not far from one dollar a bushel for his poorest Apples in this shape.—[Copyrighted, 1886.

AUTHOR OF FRUIT PASTES AND SYRUPS.

FORCING RADISHES.—PRIZE ESSAY.

Can very early Radishes be profitably raised for market, and how should they be packed, and how long will they remain fresh and crisp?

In answering the first part of the above question, the latitude in which the grower is situated has to be taken into consideration, as we gardeners who have to endure the rigors of a northern winter, labor under disadvantages that are unknown to our southern brethren; still, even here, Radishes can be forced during winter, and with a moderate profit. I say moderate profit, for I have not found the production of this vegetable so profitable as some others, as the operation of bunching causes a considerable amount of labor, but the public at large want Radishes as well as other vegetables, so we must oblige them, and be satisfied with a smaller profit on this particular article, comforting ourselves with the knowledge that we do grow other things that are more remunerative.

In growing winter Radishes, or rather, forced Radishes, it is necessary to commence operations early enough to take off three crops during winter and early spring, and as each crop will take about eight weeks from the time of sowing the seed till the crop is all off, the first crop should be sown about the middle of November, and will be ready to gather early in January. As soon as this is off,

a second sowing should be made, and when that is off, a third should be sown.

In preparing soil for the benches, I use two-thirds rotted turf or sods, and one-third thoroughly rotted stable manure, put on the benches about six inches in thickness; after this I scatter animal super-phosphate at the rate of one pound to the square yard, thoroughly worked in. This preparation is exactly suited to the growth of Radishes, and if a proper temperature is kept up, and due attention is paid to watering, will insure a rapid growth, which is very essential to make them crisp and tender. The seed is frequently put in drills five or six inches apart and three-quarters of an inch deep, but I have found broadcast sowing the best if done carefully, as it prevents crowding, and gives each individual plant about the same space to grow in. The sowing should be done, if possible, so as to leave the plants about two inches apart each way, but it is not a good plan to be too sparing of the seed, as it is easy to thin out the plants to the required distance. After sowing the seed, about half an inch of fine mold should be spread over the surface; then I take a piece of two-inch plank, one foot square, with a handle on one side, and with this beat the surface down firm and quite level; then water gently with tepid water, and continue to do so

as often as required, till the crop is ready for market, but do not water too often, for that would cause the leaves to damp off; probably two or three times a week will be sufficient.



WOOD'S EARLY FRAME.

The temperature of the house should be kept at from 60° to 65°, and as the Radish likes fresh air, the sashes or ventilators should be opened for a little while, as often as the weather will permit. The best varieties* are Wood's Early Frame, Early Round Dark Red, and White Olive Shaped. These having small tops can be grown closer together, and are, consequently, most suitable for forcing. When the first crop has been gathered, the soil on the benches should be thoroughly worked over with a short handled fork, and all lumps broken; then give a dressing of super-phosphate, as before stated. Work this in, rake the surface smooth, and sow as before.

The following figures will show the result of a winter's operations in forcing Radishes, a house one hundred feet long by twenty feet wide being devoted to the purpose:

Three crops of Radishes produced

*We have proved Early Scarlet Globe to be superior to all other varieties for forcing.—ED.

14,040 bunches, which sold at wholesale \$4.00 per hundred bunches, giving a gross return of \$561.60. Cost of seed and manure, \$14.50. Thirty cords of wood, at \$3.00, \$90.00; making a total cost of \$104.50; leaving \$457.10 for attendance, interest on capital, and profit. Which shows clearly enough that a man would never make a large fortune by forcing Radishes where the winters are so long and severe. But though the above statement is not particularly encouraging, (and in writing this essay I am not trying to paint the business in too rosy colors, but simply to say what has been and can be done); still there is another and much more encouraging side to the growing of Radishes for early market.

In these days of rapid transit, when goods can travel a thousand miles in twenty-four hours, Radish growing can be done with far greater profit in the southern states in the open air, where nothing is needed but plowing the



VICK'S EARLY SCARLET GLOBE.

ground and harrowing in super-phosphate at the rate of one and a half to two tons per acre, and sowing the seed in drills one foot apart, which will require about twenty-five pounds per acre. If these are grown and shipped to our northern cities before our Radishes grown outside are ready, I have no doubt that, after paying all expenses, a

profit of from \$250.00 to \$400.00 per acre can be made. For growing in the open air, the Long Scarlet Short Top is the best variety. When the crop is ready for market, they must be taken up, washed, and tied in bunches of about ten or twelve each. I would here impress upon the grower the absolute necessity of pulling the crop as soon as the roots are large enough, for if left a week or ten days too long, they will become tough and unfit for sale.

Packing. I have found the following to be the best method of packing for the vegetables to reach a distant market, in good condition. Take a common barrel, such as are used for Apples; put in the bottom about one inch of sawdust—hard wood dust is best; then a layer of Radishes, then another inch of saw-dust and

so on, until the barrel is filled to three or four inches above the top. Then take a screw, such as is used to pack apples, place on the barrel-head, screw down and head up in the usual way.

Keeping. The time these vegetables will remain fresh and crisp, will depend somewhat on the state of the atmosphere at the time they are shipped, but if the bunches are not allowed to get dry after washing, and if the cars in which they are shipped are well ventilated, and the barrels are kept out of the sun, they will keep quite fresh and nice for four or five days. Although the tops are not very large it is better to take part of them off with a sharp knife, when bunching, as too large a mass of tops would cause them to heat in the barrels.

B. FLETCHER, *Strathroy, Ont., Can.*

OUR NATIVE PHLOXES.

For many years the Drummond Phlox and a tall, white, perennial variety were the only Phloxes in my garden, but wandering about in autumn and spring, I found growing wild, near creeks and on hillsides, other varieties that I had long admired, and at length have coaxed them to grow for me.

The wild spring Phlox, (*P. pilosa?*), very much resembled the Drummond, being low and straggling in habit, usually of a purplish color shading off to white or pink; the panicles are looser than Drummond's, but cultivation does much for them. They grow wild on shaded hillsides, and may be successfully transplanted to loose, rich earth and half mold. I planted mine in my wild garden, about the roots of a tree.

The autumn wild Phlox, (*P. paniculata?*), is taller, sometimes growing to the height of four feet, and its favorite haunt is on the banks of meadow streams. The

bloom is like that of the tall white garden Phlox, except that it is either rich pink or purple in color. I planted a cluster of roots near its civilized white brother, and after the first season's blooming the white took on its neighbor's rich hues. This tall variety seems to grow almost anywhere without grumbling, and is an ornament to any garden.

Both these Phloxes are perennial, and make very little trouble. I sowed some Drummondii seed among the low spring variety, and am quite curious to see the effect of the mixture. Phloxes, both annual and perennial are favorites of mine, brightening my garden all summer long, taking entire care of themselves, and supplying much bloom for cutting for bouquets and other uses. No other plant could ever take their place, and I hereby gratefully acknowledge my debt to them.

KATE ELLICOTT, *Greenlee, N. C.*



FOREIGN NOTES.

BEGONIA PRINCESS BEATRICE.

Of this new variety a writer in the *Journal of Horticulture* says :

There have of late been but few good additions to our list of bedding plants, but the present season has brought us two or three, by far the best being Sutton's Princess Beatrice Begonia. It belongs to the fibrous-rooted section and was obtained by hybridizing *B. semperflorens rosea* with the pollen of *B. Schmidtii*. The plant is of a dense shrubby habit and grows from nine to twelve inches high, and is exceedingly floriferous, the flowers being small, and in color white tinged with pink. It will not seed, consequently there is no picking, or keeping in order, required from the time of planting to lifting in autumn. We have it planted as "dot" plants on a groundwork of *Alternantheras*, and also grouped on a cushion of *Sedum*, and it is alike pleasing in both positions. Another season we hope to use it still more largely in the manner just named, as also as a dividing line plant, particularly for the outer or front line of designs. A word of caution is necessary in regard to its propagation. It must be increased by splitting up the roots. Cuttings strike readily enough, but they will not branch; they keep to one stem. Last spring all we propagated in this manner (some dozens of plants,) after pinching out the points, cut them down, and in other ways striving to get them to break, all proved useless, and we had to throw them away.

DIXON'S GOLDEN ELDER.

A new Golden Elder, named *Sambucus aurea* Dixoni, is described as a very distinct variety obtained after several years' careful selection from the best colored types of the Golden Elder. "It has a splendid foliage, of an evenly diffused deep set golden color, and is a very robust and rapid grower, forming large, handsome, symmetrically shaped bushes in less time than almost any other shrub, and is seen to grand effect when dotted along carriage drives, or mixed with other shrubs at the back of borders or

shrubberies. It will thrive equally well in almost any soil or situation, but its fine golden color is best produced when placed in a sunny position." The ordinary Golden Elders are all very handsome in shrubberies where they color well, but are not so generally planted as might be expected.

Journal of Horticulture.

AMERICAN FLORISTS.

"Our American cousins," says the *Gardeners' Chronicle*, "are usually considered a go-ahead people, but in the matter of floral devices they seem to be where we were fifty years ago or more. One of the latest novelties is a bell made of flowers, with handle and clapper complete. This is the sort of thing our May Day sweeps are now abandoning. Beauty of appropriateness is, after all, about the highest form of beauty." In practicing the truism expressed in the last sentence, we think our English cousins have still much to learn, and only because they are older it is not kind in them to taunt their younger relatives; besides, it is not fair to measure the standard of a trade by a single example. But we cannot be so far behind, after all, if they are only "now abandoning" this style of floral ornamentation in England, and it is a mistake that it is "one of the latest novelties" here. The fact is that gardening and the art of the florist have not yet been thoroughly Americanized. Our gardeners have been mostly Britons, and have introduced into this country the ideas brought from "home." Those ideas are certainly mostly good, and we should have been in a sad plight without them. But in gardening, as well as in most other economic arts, the practices of the British Island and Europe require to be adapted to the altered conditions existing in this country, and when we fail to practice the proper adaptation, and blindly imitate, we are almost sure to do the wrong thing. The recent utterance of a statesman in regard to government affairs, is also applicable in this case: "American inspiration ends where imitation of England be-

gins." But the principles of art have no national boundaries, they are founded deep in nature, and true art progress lies in the recognition of these principles and the proper rendition of them. No one acquainted with the facts can think that English florists are so faultless that they can afford to throw stones at others, or that ours are the only sinners. Florists in this country, though trammelled, as they are, by some erroneous practices of the trade, are rapidly learning to apply the principles of art in original work.

KILLING SLUGS.

Liquid ammonia is coming into use in England for destroying slugs, for which purpose it is said to be very efficient. About a tablespoonful of the liquid is mixed with a gallon and a half of water, and sprinkled on plants and soil. The effect on the plants is beneficial, and it kills any slugs it comes in contact with. This is a cheap remedy, easily applied, and said to be very effectual. A writer in *Gardening Illustrated* says of liquid ammonia, or ammonia hydrate, that "two strengths are generally sold—one known as scouring liquid, which is used by laundresses and for household purposes, (this is a very weak solution,) the other a very strong and pure article, known in the trade as 880." It is the weak dilution that is referred to in the directions given above. The same writer says that for the purpose of killing slugs he prefers one of the salts of ammonia, "ammonia sulphate, or, perhaps better still, nitrate of soda; these can be sprinkled around each plant, or, if wanted in solution, about one to one and a half ounces to a gallon of water. When using these salts there is no waste, because the ammonia in the ammonia sulphate is fixed, and does not escape into the atmosphere. I must here say that the foliage must, on no account, be touched with this solution or the plants will, in all probability, be destroyed."

IMPATIENS SULTANI.

If the new Balsam (I. Hawkeri) which has such fine and deep-colored flowers, is as floriferous as Sultani, then it must be a grand greenhouse plant. With me nothing could be more beautiful as pot plants just now than the older form. The plants are from seed sown early in the

spring, and are now in four and one-half inch pots. Though such ravenous feeders, yet some check to root action of this kind is needful to produce those wonderful heads of bloom now seen. When looked upon from above the effect is singularly beautiful. As on warm days water must be given frequently, it is just as well to place the pots in saucers. Still further, it is desirable to place the pots into others a size larger, as the plants make so much growth they become top-heavy. A. D., in *The Garden*.

YELLOW ASTERS.

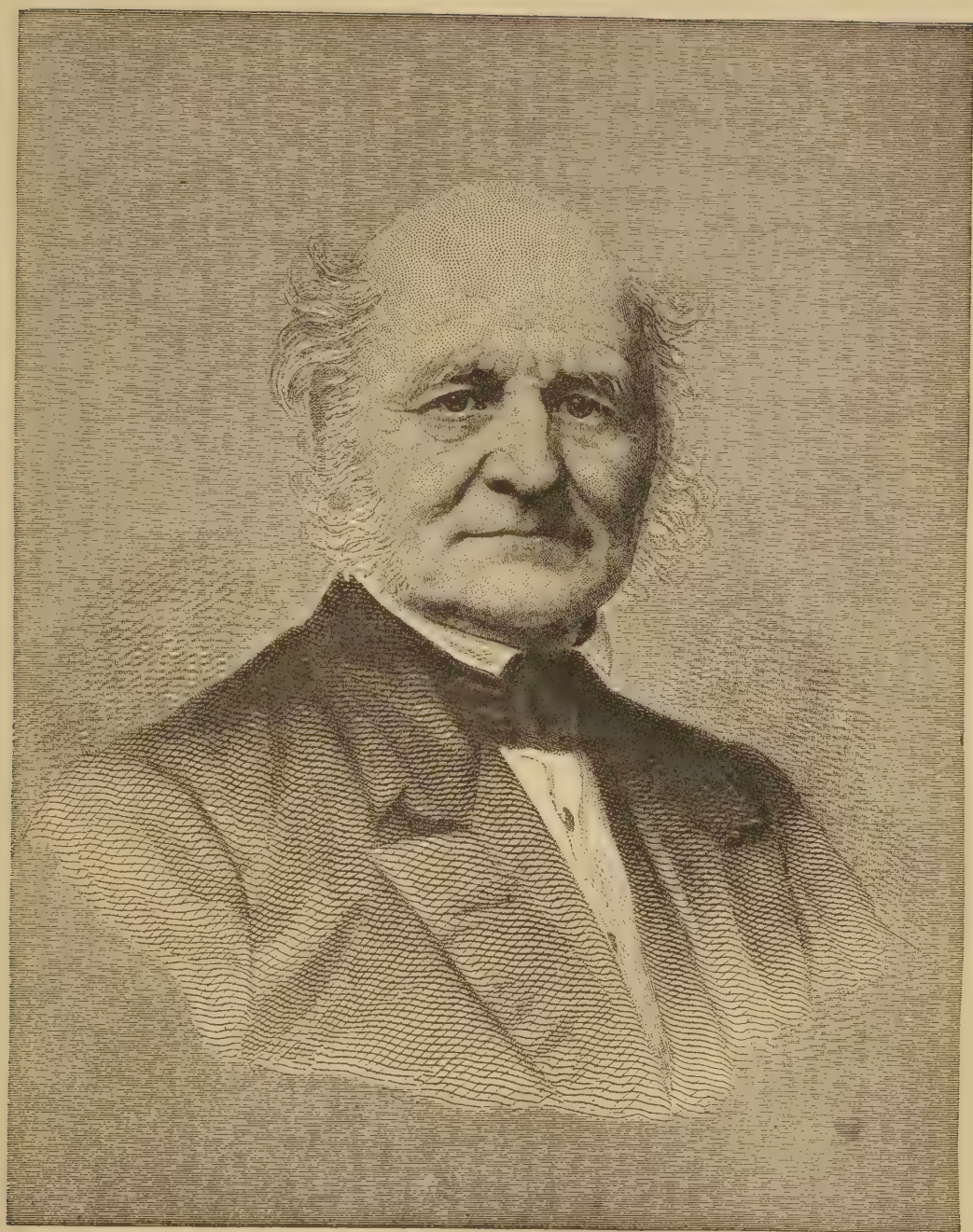
The *Revue Horticole* asks the question: Shall we soon possess a new series of Asters—those with yellow flowers? It then remarks that that fact will be less surprising than that there already exists some varieties of which the sulphur color is quite pronounced. These are cultivated by VILMORIN & Co., of Paris, under the name Pale Yellow Asters. They have two varieties of them belonging to the pyramidal form, which differ by the dimensions of the plants and those of the flowers. If the yellow is not yet very deep it will come to it. The first step has been taken.

BLOOMING OF ROSE ACACIA.

The following mode of treatment to cause abundance of blooming of Robinia hispida, or Rose Acacia, has been made known in France. As soon as the plant has dropped its flowers cut back about one-half all the branches that have borne flowers; then the young shoots, which will soon push out, will, in their turn, be quickly covered with flowers. If the same operation is practiced successively on vigorous subjects, an almost continuous blooming will be obtained.

ROOTS.

Another illustration of the wonderful faculties with which roots are endowed has lately been made known by Messrs. VAN TIEGHAM and DOULIOT. Botanists have long known that in the great majority of cases the roots originate in the interior of the axis, and find their way outside by, as was supposed, pressure of the growing tip of the root on the surrounding tissues. The two botanists whose names we have mentioned show, how-



Marshall P. Wilder

ever, that the rootlets, buried at first in the substance of the main root, make their way out by secreting a fluid which destroys the neighboring cells, converting them first into jelly, and then dissolving and perhaps absorbing them. The action of the rootlet, then, in the tissues of the root from which it originates, is similar to that by means of which it attacks the particles of soil and derives food-material from it. The action is also the same as that by means of which an embryo plant—say, of Wheat or of the Cocoa-nut—destroys the albumen surrounding it, and appropriates it for food.

Gardeners' Chronicle.

PHYLLOXERA IN FRANCE.

It has been stated in the French report to the Phylloxera Commission that the total destruction of vineyards in France by the phylloxera has amounted to 1,000,000 acres, and the loss to France has been estimated at three milliards of francs. What this is it is hard to imagine, but when we recollect that the sum paid to Germany after the third invasion of France was two milliards it may readily be seen.

It may be asked, Has any thing been done or can be done to stop its ravages? In answer to this I may say that in 1874 a sum of 300,000 francs was allotted as a premium for the invention of some efficacious way of dealing with this pest. Up to last year this had not been claimed, so that here is a little gauze-winged fly which you can crush with your finger defying all the science and intelligence of the world to extirpate it. Various experiments have been tried, such as flooding the vineyard and so destroying the larvæ at the roots; the use of sulphide of carbon and sulpho-carbonate of potassium had been recommended, but

they have not been of very real use, and nothing but stamping it out, destroying the vines, and not cultivating them again as vineyards for a period of from five to eight years, is what has been generally adopted, and for this to make up the losses of the vine growers large sums have been each year added to the French budget. The idea of planting American vines has been discountenanced by the Commission.

Journal of Horticulture.

CAMELLIA.

Now that the Chrysanthemums are on the wane we are beginning to look to another Chinese product, the Camellia. We hear occasionally people speak of Cameelia, but the real name was Camelli, with Camellus, Camel or Kamel as *aliases*. He was born, according to a statement by Father PAQUE, at Berlin in Moravia, in 1661. He became a member of the order of Jesuits and passed a large part of his life as a missionary in the Phillipine Islands, where he died on May 2, 1706. At Manilla he established a free dispensary for the relief of the indigent and sick, and entered into communication with RAY and PETIVER. In the Philipines CAMELLI made rich collections and many drawings. These drawings are now in the possession of the Jesuit College of Louvain, to which they were presented by Count ALFRED LIMMINGHE, who bought them at the sale of A. L. DE JUSSIEU. The eminent French botanist attached much value to these drawings of CAMELLI, and attached many notes and comments to them. The drawings of CAMELLI are said to be so beautifully executed as to resemble engravings rather than pen-and-ink sketches. The botanical plates amount to two hundred and fifty-seven in number.

Gardeners' Chronicle.



PLEASANT GOSSIP.

ORANGE AND LEMON TREES.

Must young Orange and Lemon trees be grafted in order to bear, and if so, when and how is the operation performed? H. K., *New Knoxville, Ohio.*

It is not necessary that Orange and Lemon trees should be budded or grafted in order that they shall bloom and bear fruit. Like Apple or Peach trees, the seedling trees of the Citrus family will bear fruit, but, like them, also, each particular specimen will be different from every other one. Those living at the North, in distant country places, who cultivate these plants in tubs or pots, merely for ornament, need not trouble themselves to bud or graft them, but merely to keep them growing in a healthy state until they are old enough to bloom. Orange and Lemon growers bud and graft the seedling stocks to change them into superior varieties of fruits. It is customary, also, for florists to increase by budding certain varieties that are prized particularly for the abundance, or the earliness, of their bloom. The operation of budding Orange and Lemon trees is not essentially different from that practiced on our ordinary fruit trees, but the difficulty in the performance of it by amateurs who live in country places consists in the fact that the buds must be procured by them from a distance, and are apt to be injured in transit or after they have been received. After growth has commenced in the spring is the best time to insert the buds in the young shoots.

A LARGE-LEAVED AROID.

I send a leaf of a plant which I have been unable to get named. The parent of the one I have has been in possession of its present owner some thirteen years, and for the first time has produced a bloom, now partly open. The flower [spathe.—Ed.] is in form like that of a Calla Lily. The stamen [spadix.—Ed.] covered with minute seeds, [flowers.—Ed.] looking not unlike an undeveloped ear of Corn; in length about four and one-half or five inches, and colored at tip creamy white, growing lighter to the base. The calyx [spathe.—Ed.] of a greenish white, and in shape longer than a Calla flower. The leaves very large, one having measured twenty-eight by thirty-two inches, rather slow growth, upright foliage, flower has faint Apple-scent odor. Please answer

through your valuable MAGAZINE, which is a regular visitor and necessary one to our household.

J. M. F., *Fredonia, Kans.*

The leaf came rolled up into a small bundle of which the exterior was dry and brittle, while the interior, which was the part of the leaf on each side and including the midrib, was very much decayed so that in unrolling, while the brittle edges broke somewhat, the decayed portion fell apart. However, by careful handling we obtained an idea of the general form of the leaf, though the character of that particularly important point where the blade spreads out from the petiole was indeterminable on account of the decay; and, so, also, it was impossible to say exactly how this leaf varies, in this respect, from that of *Caladium esculentum*, to which it bears, otherwise, a general resemblance. From the pen sketch received, we get the impression that in the pose of the leaves it is different from *Caladium esculentum*. As it is a plant unknown to us we cannot identify it from the data at hand.

We wish, however, to call the attention of our readers to the fact that, in sending flowers and leaves to us for examination, it would be far better in all respects if such objects should be pressed and dried in the usual manner of preserving herbarium specimens, and then send them in flat packages between pieces of cardboard or strawboard; they are then almost sure to reach us in as good condition as they are sent.

CLIMBING PLANTS.

The *Maurandya* makes a beautiful hanging basket plant, but, to obtain the best results, put only one plant in a pot and give it plenty of root room. Then, with part of the branches twining around the wires which suspend the pot, and part of them hanging beneath it, you will have a lovely plant. I always found that the leaves became quite small in winter, and that there were no blossoms at that season. We meet with success in the culture of plants in proportion to our knowl-

edge of the requirements of each one, and they seem to possess as many idiosyncrasies as human beings.

Pilogyne is another beautiful climbing plant, with leaves shaped like Grape vine leaves, and small fragrant flowers. It is a quick grower, and easily raised.

A. W.

EARLY HARVEST BLACKBERRY.

We have received favorable reports of this fruit for the past season, and should be pleased to hear still further from any of our readers who have tried it. As



EARLY HARVEST BLACKBERRY.

will be seen by the illustration, which is taken from a photograph, its bearing habit is remarkable. The berries measure from an inch to an inch and an eighth in length, and three-quarters of an inch, or a little more, in transverse diameter. They are of good quality and have the necessary firmness to make them good shippers. It is a very early

variety, and is claimed to be the earliest. It is also said to be a very hardy variety, but on this point we suspend judgment and await more testimony from different localities.

BEET SUGAR IN CALIFORNIA.

A very full and satisfactory account of the Beet sugar industry in California is given by Prof. E. W. HILGARD, in the September number of the *Overland Monthly*. From this account it appears that the working results of the Beet sugar factory at Alvarado "have, for the past two years, been on a level with those of the best European factories." The principal points of peculiar adaptation of a certain portion of California to this industry are mentioned; the chief of these is the dry atmosphere by means of which the Beets, after gathering, can be kept several months with little expense for protection. Another advantage is that "the absence of summer rains in ordinary seasons does away with a large proportion of the expensive manual labor in hoeing and weeding, which forms a considerable item in the cost of production" in Europe and in the Atlantic States. It also appears that a higher sugar percentage is secured in the California Beets than those employed in the best European factories.

The conclusion is, that there is "abundant reason for the assertion that the Beet sugar industry should be successful in California if any where, unless an unfriendly commercial policy on the part of the government should interpose artificial obstacles." The Alvarado factory "has been exposed to adverse conditions to the fullest extent, in the most direct competition with the cheap product of plantation labor imported free of all duty from the Hawaiian Islands, under the provisions of a so called reciprocity treaty, which, while ostensibly reciprocal in principle, in practice works all one way."

The writer estimates that Alameda and Santa Clara Counties alone can yield an annual product of 760,000,000 pounds; but other portions are well adapted to this industry, so that "California alone could readily supply the entire present and prospective sugar consumption of the United States, and still leave ample room for orchards and vineyards, and the production of the home supply of breadstuffs."

THE RAMANAS ROSE.

As we have already published a colored plate of both of the varieties of the Ramanas Rose, the rose-colored and the white, it may seem unnecessary to introduce it again, but we have been so well

among the multitude of beautiful Roses which we now possess none have such luxuriant green foliage, and none are more beautiful in autumn when adorned with hips, which are unusually large and bright orange-red in color."



ROSA RUGOSA.

pleased with it during another season's blooming that we desire again to remind the lovers of single Roses of the beauty of this plant, both in its flowers and foliage. The accompanying illustration has been made after one that appeared in the English publication, *The Garden*, and in regard to which, it says:

"The half-opened flower of the White Ramanas Rose (*Rosa rugosa*), is so lovely that we have been tempted to again illustrate it, so as to show the bloom in this stage. When fully expanded and showing the golden tassels of stamens the flowers are beautiful indeed; but the half-opened state is to many even more charming. If cut as soon as the buds are upon the point of bursting, they will expand well in water and last longer than if cut when quite open. Every one who knows this Rose will agree that it has no rival: even

crimson, as beautiful when passing away as in its May-day freshness. The white variety does not appear so vigorous, but is more beautiful; the berries no longer crimson, but of a ruddy orange, remind one of the little Mandarin Oranges one gets at Malta, and clustered among the glistening milky-white blossoms are charming.

"The Japanese in their paintings make free use of this picturesque shrub. Happening to show the crimson Ramanas Rose to a decorative artist some days ago, he was silent for a few seconds, then exclaimed, 'Now, I understand it all,' and went on to say he had been that morning examining a beautiful Japanese screen, but (unheeding the leaves) felt completely puzzled, to know why they drew their Apples with blossoms on the same branch. Now he recognized the large fruit of the Rose in what he had

A writer with the signature of L. A. L. indites a retrospect from an Irish garden, and under date of August 25th, says:

"Just now the Japanese Roses are at their best, and seen in the morning sunshine nothing can well be prettier than the clusters of large crimson berries, shining among the glossy foliage with wide-open blossoms and bunches of ruby buds breaking through the berried branches. The hardiness and vigorous growth of this Rose makes its culture the simplest. Each summer it sends up new branches, which are cut back in February to six inches or so, every bud of which in turn shoots up strongly some four or five feet high, covered with blossoms and fruit from early summer until the first frosts of October turn the whole bush to amber and

mistaken for Apples, and carried away a branch to design from."

COUNTRY HIGHWAYS.

At the late meeting of the Grand River Valley Horticultural Society, in answer to the question, What is the best way to make our country highways attractive, one person answered: "Make a good road-bed and plant attractive trees along the roadside." Another said: "Avoid monotony in planting trees. Group them naturally. Leave some shrubbery along the margins, and plant trees that will attract the attention of people of good taste. I wish we could imitate some roadsides I know where the country is not cleared up, where a group of Hemlocks rise from a bed of Wintergreens, and the evergreen foliage is relieved by the colored leaves of Sassafras and Paw-paw."

LADY WASHINGTON GERANIUM.

I well recollect the awe and admiration with which I regarded the only two of the large, annual blooming Pelargoniums I ever saw in private houses. I supposed them to be very difficult for the amateur to raise. My own experience has taught me differently. They are among the easiest plants to cultivate that I ever tried. Much less trouble than the common Geranium. A slip stuck into dirt of any kind, at any season, is almost certain to grow, and also to grow rapidly.

I have only two varieties, but hope to try more. One of these has three pure white petals, and a lovely crimson truss outlined on each of the upper two. The other variety is scarlet and black.

I used also to suppose they only bloomed once, like the Tuberose. That was a mistaken idea. My light colored one was three years old this spring, and I counted at one time over thirty clusters of blossoms, and ninety of buds. Perhaps they would not do as well east, but I do not see that the other Geraniums in this region of country are superior to those I raised in Illinois or Minnesota.

I find that a few things are very important in their culture. They require all the air and sunshine they can get, and will not do well crowded among other plants, or in the shade. A neighbor gave that a trial with a light variety. Hers stood on a piazza, nearly hidden by other

plants, and it was tall and spindling, and covered with lice, and without flowers. Upon being told what the matter was, she set it outside, and it begun to grow and thrive and blossomed beautifully.

Two years ago I was sick, and my plants were neglected shamefully. That one plant set out doors nearly all winter, was watered when the rain fell on it, and grew in the commonest kind of soil. But in April it was a marvel of beauty in spite of everything.

Both of mine are in tin or iron cans. One in a lard pail, the other in a large iron powder can. I fancy, from observation, that they do best in such receptacles. I find that bones in the bottom of the can, and a good deal of leaf-mold suit them amazingly. I hope every reader of the MAGAZINE will try at least one plant.

ANNA WOODRUFF.

A PREMIUM VINEYARD.

The following is an account by Mr. JONAS P. HAYWARD, of Ashby, Massachusetts, of his own vineyard, for which he was awarded the first prize by the Massachusetts Horticultural Society in 1885:

"My vineyard contains twelve hundred vines, all Concords, except one row containing a considerable number of varieties. It was planted in 1877, in light gravelly loam, the vines being set six feet apart in rows eight feet apart. The vines are trained on a four-wire trellis, fruiting two arms of six feet each on each vine, at the same time growing two canes for renewal.

"When the shoots are about eighteen inches long they are cut back to six leaves; also cutting all tendrils and all but two of the growing fruit buds. All laterals are cut back to one leaf, which has to be done two or three times each season, according to the vigor of the plant. When the Grapes are about the size of Peas, the clusters are straightened, counted, and cut down to thirty or less. My aim is to raise ten pounds to the vine.

"The renewal canes I have sometimes kept cut back to six feet during the summer; but for the past two years I have let them grow as far as they would, which has been from eight to twelve feet, and then at the fall pruning cut back to six feet. I do not know which is the better way.

"I have tried to raise Grapes without

fertilizing, but of late years have applied chemicals to the value of about one cent per vine. This year I have doubled it. On this vineyard I have applied this year,

100 pounds Sulphate of Ammonia,
325 pounds Muriate of Potash,
400 pounds Dissolved Bone-black,
75 pounds Sulphate of Magnesia,
300 pounds South Carolina Rock Phosphate.

This was thoroughly mixed and evenly sown broadcast. Then, for an experiment, I sowed one bag of Stockbridge Fertilizer for Grapes on one-half the vineyard. The difference is hardly noticeable.

"The reason for increasing the amount of fertilizer was that the foliage had not always been quite satisfactory; but this year it is all I could desire. I keep the ground free from weeds, and cultivate thoroughly with an Acme harrow."

A fair valuation at the present time of the chemicals used, and for which any one can purchase them, is as follows:

Sulphate of Ammonia, 24 to 25 per cent. Ammonia,
3½ cents per pound.

Muriate of Potash, 2 cents per pound.

Dissolved Bone-black, \$22.00 per ton.

Sulphate of Magnesia, \$15.00 per ton.

South Carolina Rock, dissolved, \$22.00 per ton.

At these rates the twelve hundred pounds named above would cost \$18.26. One pound was applied to each vine. The rate of yield with an average of ten pounds to each vine is something over four tons to the acre.

FLORAL GOSSIP.

One who loves flowers will want a corner of the garden in which to raise plants to cut from, for more or less of them will be wanted in the house all through the season, and to give away in bouquets to friends, and there will be apt to be a demand from church and school entertainments for more flowers than one feels like cutting from that part of the garden designed for the adornment of the home grounds, and which cannot be encroached on to any great extent without detracting from its beauty. To supply these demands I would advise having a corner in which to sow all kinds of flowers. Such a corner can be made the most attractive part of the garden, because there will be such a "make-yourself-at-home-air" about it. When you go among your "show plants" in formal beds, one feels somewhat as if he were being entertained

while making call, but when you go into the "catch-all" corner it seems as if one had "dropped in" on a neighbor with whom all ceremony could be dispensed with. No formality there, no putting on airs for appearance's sake, but old-fashioned hospitality of the free-and-easy sort, which is, after all that's said and done about it, the best kind of hospitality I know anything about. I always feel as if I were expected to put on company manners and "spruce up" a little when going into the show garden, but never that way when I visit the corner where I raise a "little of every thing."

Such a happy family of plants as I had there this season. Sweet Peas caught hold of the fence and pulled themselves up, up, up, until they could look over on the other side, and Phlox and Mignonette snuggled down among the Larkspur as if they were in love with each other; Marigolds and Petunias tried to see which could make the most show at one side of the corner, and Chinese Pinks and Portulaca made a great effort to out-do them on the other, and it wasn't their fault if they did not succeed. And in the center Bachelor's Buttons and Poppies and Mourning Brides, as they call the Scabiosa in a great many sections of the country, grew up in the most perfect harmony together, and did what they could toward making the world bright and cheerful, and that was no little. An old lady living near used to come very often over to see what she called my "old fashioned garden." "It's like the gardens they used to have when I was a girl," she said. "Then they grew flowers for their own sakes, but now-a-days they want them to help make a show. A show is what most persons care about, it seems to me, more than they do about the dear flowers."

I think she was right. If we grew flowers simply for the pleasure to be derived from their beauty and fragrance—and that, it seems to me, is why we ought to grow them—we would never plant them in prim and formal beds where the pattern and design is sure to be spoken of, but seldom the beauty of the flowers with which they are wrought out. It has always seemed wrong to me to make such a use of anything but bright foliaged plants. Use them for carpet and ribbon gardening where the design will

be such a formidable rival of the flowers' beauty as to force it into the background, or rather, to make it secondary, and plant the flowers where they can be, and will be admired because of themselves.

Some day carpet beds in which the effect is worked out with fine flowers will be thought in as bad taste as the floral designs exhibited at weddings and funerals. They are impositions on good taste, but they are "the fashion," and one might as well be out of the world as out of the fashion, they say.

One of the best new Geraniums is Apple blossom. It is a soft pink, shading into white, almost exactly like the flower from which it takes its name. Most of our pink Geraniums have been of a bright rosy shade, but this is of the pearly, sea shell tint, which is half way between pink and white; it is, in fact, a Pauline Lucca with the hint of a blush on its petals.

And speaking of Pauline Lucca, reminds me that I wanted to say that this is the very best white Geranium I have ever grown. Most so-called white ones are not white, they are tinged with red or green and have a dirty look; but this variety is a pure white, and it is, moreover, of fine shape and very free flowering, quite as good in most ways as the more popular scarlet varieties are. The best scarlet, so far as color and shape are concerned, is Rienzi. And the next best is William Cullen Bryant. Both of these varieties are very rich and brilliant in color, with a velvety texture in their petal, and a glow like that of gold dust on them when you look at them in the sunlight. The petals are so wide that they overlap each other and give us a round flower, like a Pansy. The day of the old, narrow petalled Geranium is about gone. Such kinds will soon be neglected by all who like to have full, circular flowers, and who does not? I can remember when the blossoms of this popular plant were made up of five narrow petals, standing out from each other in an unneighborly way, and about all the beauty there was about them was in their color, which has not been improved so much, in the scarlet and crimson sections, as has the form of the flower.

Among the doubles I fancy there are few, if any, superior to Madame Lemoine, which was one of the first double pink

kinds introduced. It is a good bloomer, fine in shape and unsurpassed in color.

One of the best variegated leaved plants I have had for the last two years is the new Geranium, Madame Salleroi. Its leaves are never cupped or drawn down about the edges as most of the green and white kinds are. Mountain of Snow and similar kinds do not retain their foliage long; about as soon as a leaf completes its growth it begins to turn yellow and soon drops off, the variegation being a sign of a lack of vitality in the strain; but this is not the case with Madame Salleroi; the foliage is retained in a healthy condition quite as well as that of the green leaved kinds. It is a most useful plant to work in among others. I have several pots of it, and wherever there is a need of something to brighten up a group, and flowers are not at hand to do it, I use these Geraniums, and their pretty green and white leaves are very effective. They grow in a very compact shape, forming a rounded mass of foliage over the top of the pot. I do not hesitate to pronounce it the best white edged variety we have. For a border out of doors it is far superior to the old section of white and green leaved Geraniums. *

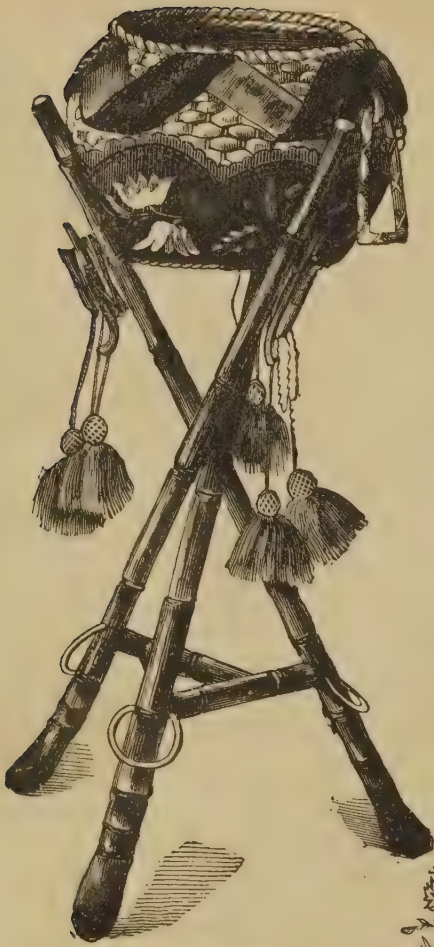
INDUSTRY GOOSEBERRY.

This English Gooseberry, which has now been considerably disseminated in this country, appears to hold its place as a non-mildewing variety, a very unusual circumstance in this country, for all other varieties of the English Gooseberry have been subject to a destructive fungus on this side of the Atlantic, except in some particular spots, or for a short term, merely. The fruit is large, of a dark red color, and of excellent quality. It is quite productive. With this variety and Downing, and Smith's Improved, fruit-growers should be able to raise handsome crops, and every private garden should be enriched by their possession.

PRUNING A YOUNG VINE.

SAMUEL MILLER says that "when a young vine is wanted to bear for the first time, it will be well to cut it off two buds above the first tendril, as the buds below the first tendril don't bear fruit. This was told me many years ago, and has always been adopted since by me." Can any of our readers corroborate the statement?

FLOWER FASHIONS IN PARIS.



ORNAMENTAL BASKET.

moss; it lasted perfect the entire afternoon, and defied the heat of the gas all the evening. The screen was so light that it seemed hardly possible to contain the flowers, which were natural Violets and red Pinks. One dollar postal order addressed to a celebrated florist at Nice, brings a good sized box of Violets in damp moss, and they last five days. Are they not the most beautiful of all flowers for decoration? Even when faded they leave no disagreeable odor. The bamboo sticks for basket legs and tripods are sold in Paris in sets of three and six; the tassels used on the basket, and the loops or handles are of straw.

A floral ornament intended

Do flowers hold a place in the fashion world, changing with the caprice of the season? Yes. Last year fans were made of flowers, principally Roses. This year Grasses are the mode, and peeping from every corner is the preserved precious Corn flower, or the artificial Poppy, or the dried miniature Chrysanthemum. This season the demand for variegated Pinks has been so great that I warrant, next year, there will be an abundance.

The old-timed custom of an ornamented basket has been revived and is now in use on reception days to contain the exquisite flowers instead of putting them in stiff vases. The basket is made of straw, and any lady can make it, with a few hints from her gardener that it do not become too heavy, and that no earth be introduced, only wet moss, and the flowers stuck in loosely here and there.

I noticed at the reception of our American minister a screen made of straw and grasses with natural flowers, the stems bound with wet



A WINDOW PIECE.

as a window piece is as follows: The envelop is made of scarlet velvet embroidered with gold colored silk, and kept in place by invisible strings easily made; the back fits closely against the wall, not being well enough made to permit of inspection. This winter garden, filled with fine grasses and miniature Chrysanthemums, is very effective.



PERSIAN.



PERSIAN.



VEDDO.

Originality is sought in these ornaments, and while flowers do not change, the mode of the season in Paris makes some particular flowers in demand; this year, the demand being for Pinks and Violets for house decoration. The Double Fringed, and the Double Heddewigii Chinese Pinks are much esteemed.

appearance in Paris are the Blanc de Montagne, the White Roman and La Vierge, the new Hyacinth glasses are of very rich appearance, and I send illustrations of some of the designs.

The hanging baskets are very original, and made in every imaginable form, and those of straw, in form of a boot and envelop are used for running or climbing vines. Picture frames and clocks are decorated with flowers, and as the Louis XIV, Louis XV and Louis XVI mantel

clocks are ever the center piece of a mantel, the garlands and decorations of grasses and dried flowers are very tasteful.



JAPANESE.



TUNISIAN.



ITALIAN.

ADA LOFTUS.

VALLOTA PURPUREA.

This plant, represented in the colored plate in this number, is one that is fairly well known and popular as a house plant. It is called by some botanists, *Amaryllis speciosa*, and it differs generically but slightly from the members of the *Amaryllis* family. In England it often goes under the common name of Scarborough Lily. It is a native of South Africa, and has been in cultivation more than a hundred years. Its season of bloom is in summer, and, unlike many varieties of *Amaryllis*, it should not be wholly dried through the late fall and the winter months, but be sparingly supplied with water. A good loam made rich by the addition of old stable or cow manure is

suitable for it. In potting bulbs place one in a four or five-inch pot, and keep it in it until it has quite filled it with roots, when it can be shifted into one a size or two larger, but it is best not to repot too frequently, as the bulbs bloom best when the roots are somewhat restricted. When doing well the bulbs often send up several flower spikes, each bearing from three to five of the bright scarlet blooms. The bulbs produce many offsets, which can be removed without disturbing the old bulbs, and thus the stock increased. The bulbs are sometimes planted in spring in the open border, where they will bloom in summer, and in autumn are removed to boxes with soil attached, and thus kept during winter.

* "FRUGES CONSUMERE NATI."

I have always loved a vegetable dinner, I delight
In the Crécy soup or Condé on the *menu* of the night ;
The Potato needs no praises, there is rapture too, I
ween,

On the face of every *gourmet* at the mention of the
Bean ;

And, like wise Sir Henry Thompson, I can feel my
heart aglow

At the thought of all the merits of the pleasant Hari-
cot.

I am very fond of Cabbage, and the tender Spinach
begs,

Though it isn't quite *en règle*, to be served up with
poached eggs ;

Then the Cauliflower is charming, and the Celery
when viewed

Fresh and crisp from out the garden, or artificially
stewed,

While surely on one esculent we're all unanimous,
Is there aught that's more entrancing than thy taste
—Asparagus !

All must love the lively Lettuce ; we have reason too
to bless

Cruciferae for sending us the piquant Watercress ;

Upon any list of salads let the true Tomato stand,
With the Endive and the Beetroot as supporters on
each hand ;

There the Cucumber awaits us, and we fain would
keep alive

Both the Tarragon and Chervil and insinuating Chive.

There is poetry in Mushrooms, and the Lentil too
can please,

And a thrill goes through my midriff at the thought
early Peas ;

I am grateful to the Turnip and the Parsnip looking
pale ;

There's the Salsify seductive and the delicate Sea-
kale ;

But the bard shrinks back from one task, for no mor-
tal ever can

Do full justice to the comfort that the Onion is to
man.

Then we'll hasten to the Griffin, for a little way be-
yond

Are the Vegetarian dining-rooms of Messrs. Spiers
and Pond ;

And the Doctors too are with us, men of note in Lon-
don town,

Risdon Bennett, Milner Fothergill, and also Critch-
ton-Browne ;

They have told us very plainly that of health we
should be winners,

If we ate less meat, indulging in more vegetable
dinners.

London Punch.

* On the opening of a Vegetarian Restaurant.

SEWAGE AND DRY EARTH.

In the descriptions of Mr. PULLMAN'S model city on the "exhausted prairies" in the far West, one noble feature is that of two reservoirs, one elevated to supply pure water, and one at the lowest point to receive all slop and sewage. The contents of the last are pumped upon sixty acres of garden, and this is said to pay

\$8,500 annually, on a cost for the whole plant and work, of \$80,000. The sanitary advantages are not in the estimate ; they are inestimable. But, after all, is not the dry closet system, well managed, the cheapest and surest and most widely serviceable way of securing these grand economies, even where there is much slop? Certainly, it is the only way that should be in use about country houses where there is no water supply with head enough to carry all wash to the fishes. With it, all the unseen dangers from underground drains, in which wet waste lies rotting and poisoning the air with its emissions of fever-breeding germs and gases, are entirely obviated, and all the inconvenience, nastiness and danger of the common out door resort. While there is nothing in the least offensive to any of the senses or to health or comfort in the dry earth closet, which may and should be a connected appendage to the house, there is a complete saving to the soil of all the elements of fertility. W.

UNDER BLUE SKIES.

With this title, Mrs. S. J. BRIGHAM has prepared a most exquisite book for the little folks, in which she has fairly earned the title of poet-artist. It is issued by Worthington & Co., 747 Broadway, New York. The Illustrations, some eighty in number, of large octavo size, are partly chromo-lithographs and partly plain lithographs, but all of much merit, representing out-door scenes accompanying very pleasing little poems, suitable for children from six to twelve years of age. It is the handsomest book of its character we ever saw, and the clever writer and sketcher should reap a good reward for this successful effort in pleasing the children.

BLACKBERRY LILY.

A reader asks about this plant, *Parthenocissus Chinensis*, and wishes to know how to get the largest and handsomest flowers from it. Good cultivation and good soil will enable it to produce its finest blooms. The plant is quite hardy, and with good garden care it should do well. A mulch of stable litter laid around the plant in the fall or winter will afford it the nutriment to make a strong growth in the spring.



OUR YOUNG PEOPLE.

FIRESIDE GHOSTS.

IN TWO CHAPTERS.—CHAPTER I.

"Now that our guests are gone," said Kathleen Raymond, "how shall we spend this New Year's evening, so as to wind up the day nicely?" and she drew a chair toward the cozy fire, casting askant glances from her brother Clarence to her mother and grandmother. The latter, though sixty years of age, was one of those bright, cheery personages who retain their youthful feelings and appearance until late in life. In her girlhood her exuberant spirits and her persistent efforts to smuggle into her attire some forbidden bit of gayety was the dismay of the staid and gentle woman who had been educated as a consistent disciple of George Fox and William Penn, and who often pondered in amazement why a daughter of hers should possess such inherent tendencies.

Hence it was that this daughter had been subjected to many solemn warnings against the follies and vanities of the world, and tearfully enjoined to cultivate that gravity of deportment and plainness of apparel becoming a maiden whose earthly career could be but a span, whose body was born to corruption, and whose soul was destined to immortality. Of course, with such training from her saintly mother the struggles between her sense of duty and her natural inclinations subjected her to seasons of terrible condemnation, when it seemed that the very "crack of doom" was impending for her, and that every step she took was likely to be the last one between her soul and perdition. Such had been the youthful temperament and training of the handsome, dignified woman sitting this evening by her son's fireside. Often had Clarence and his sister been entertained by their grandmamma's reminiscences of the past, which for variety had impressed them as being exhaustless. So their mother now referred them to her as one who was always able to furnish desired entertainment.

"O, yes, grandmamma," exclaimed Kathleen. "I've read in the papers of

late so many accounts of apparitions being seen, that I determined to ask you, the first opportunity, for some old-time ghost stories."

"Tell us some, please," added Clarence, "I think ghosts are a jolly old lot for furnishing first-class, thrilling stories."

"Perhaps if you'd seen a few of them you'd not speak of them in that reckless manner," retorted Kathleen.

"I fear," said grandmamma, "that my ghost stories, with one exception, will not be very satisfactory as such. But will give you some youthful experiences which helped to furnish the excitement that my ardent temperament craved, and which my quiet, uneventful life did not supply. Until ten years old I had been so strictly guarded that I had never heard a rough word spoken until one day when I was sent to a neighbor's house with some Raspberries, which I had just helped to pick for a sick boy. Before I left, some little mishap occurred and the mother exclaimed, 'Lordy!' I was greatly impressed with the dash and daring of such an expression, and resolved to use the word with emphasis on the first suitable occasion. I returned to the garden where the others were still picking berries, and longed for something to happen that I might give my new word an airing. But my berries wouldn't spill, and my frock wouldn't tear, and I couldn't get a scratch. So, at last, I scratched myself, and then screamed out, 'Lordy!' My sweet, precious mother looked perfectly horrified for an instant. Then, taking me by the arm with a very firm grasp, she marched me into the house, where her solemn reprimand was so tempered with gentleness and with assurances of her great love for me that I thought her almost angelic, and readily promised never to use the word again. Thus was nipped in the bud all ambition to embellish my language with brilliant dashes of startling words.

"As to books, I had read nothing more pernicious than *Pilgrim's Progress*, which I had taken in its literal sense, and which to me was a romance, while the Giant Great Heart was a hero just to my liking. But when, at last, I was gravely informed that he represented the Holy Spirit, and that Christian's burden was his load of sins, and the City of Destruction this ungodly world, the book became a terror to me. I took it from my room, where it had been fondly cherished, and buried it behind a row of books in my father's book-case, where, side by side, stood *Homer's Illiad*, *Penn's No Cross No Crown*, *Young's Night Thoughts*, *Barclay's Apology*, *Cowper's Poems*, and the like. One day I read somewhere that Dr. Young wrote his *Night Thoughts* by the light of a candle fixed inside a human skull. This fired my imagination, and I bore the volume to my room, and after many readings I came to consider the much-addressed Lorenzo as a boon companion of my own, inasmuch as he was subjected to a whole bookful of dissertation and teaching.

"One of my experiences in those days is vividly remembered. I chanced to see a laborer trying to subdue a fractious horse, and pausing a moment I heard him give vent to a volley of blasphemy that, even to familiar ears, must have seemed a fearful combination of impious words. That he was not instantly struck dead by a bolt from heaven was what I could not understand. The words tingled through my brain and took my very breath. I ran into the house, but still could hear them, and on fleeing to my room I found they had followed me. Do what I would I could not get rid of them, and before I realized it I was saying them over to myself. Horrors! What would become of me! I opened my *Night Thoughts*, but could see nothing but blasphemous words on the page, and cried out, 'Oh! Lorenzo, you were never such a wretch as I am!' (Stop your laughing, Clarence; you've no idea what agony I suffered.) I threw down the book in despair, when I suddenly recalled that godly people of olden times prostrated themselves in the dust when seeking pardon for unwonted sin. I could do that—O, yes, I could do that easily if only I could find a patch of 'dust' to prostrate in, where I would not be discovered.

Then I bethought myself of a place where the grass never would grow, and rushing down stairs, like a mad cat, I went behind some large Fir trees and crept on my stomach beneath the lower branches which were close to the ground. There I lay and prayed that the fearful words and the temptation to repeat them might be taken away from me. When I felt sufficiently abased to withdraw from my uncomfortable position, I was intensely relieved to find that my mind was entirely absorbed in anxious thought as to the best method of removing the dirt from my frock, so as to escape general comment and reproof. I puzzled my mother soon after by inquiring if people were pardoned for wrong doing if they prayed for it. Her answer satisfied me, and I was happy until my next transgression.

"My first consciousness of that superstitious element, which, if once developed, is the bane of juvenile imaginations, was awakened by an Irish woman who served as cook in the family. She told me stories on the sly of wicked fairies, and furies, dwarfs, and goblins, and bog witches which were terrible; but as she located them all in Ireland, I was not afraid of them. The bog witches had noses of fire, and hovered over the swamps on dark nights, often dragging bad children down below, who were never heard of again. Of ghosts, she seemed to have no knowledge, and I first heard of them through her successor, Jane, and her associates. I was amazed to find that they revelled in a world of which I knew nothing, and talked of things of which I had never heard, ghosts being the most prolific subject. I was perfectly fascinated with the idea of intangible beings passing through closed doors, or swinging open at will the locked and bolted ones; and though the bare thought of witnessing such performances was terrifying, yet the very terror was a mental condition sufficiently exciting to prove satisfying to my imagination, which hitherto had found little to feed upon, save anxious speculations as to the various degrees of punishment in store for the several grades of offences involved in the wearing of gay colors, flowers and frills, as, in my most depressed moments, I felt sure I should do as soon as old enough to control my own costume.

"But I was never allowed to sit with

the hired help, much less when their companions were present for a social evening, at which times each one seemed to vie with the others in telling the most blood-curdling stories. So I was naughty enough to arrange with Jane that on such occasions I was to slip down the back stairs after having gone to bed as usual. Thus I became an eager listener to weird tales, many of them, no doubt, invented for my especial benefit, sitting in the meanwhile near a closet in which I was to hide if any member of the family was heard approaching. After such entertainment I would rush up the stairs with my dim night lamp, half believing that the rustle of my clothes against the wall was made by an invisible companion in the shadows at my side. Of course, I would undress in the greatest haste, and leap into bed with my wee sister, as though something were trying to clutch me before I could get in.

"But my punishment came. Once, when Jane's companions were with her, my mother spent the evening out, and, as usual, I went down. They had a greater variety of stories than ever before. Among them they told of a girl who saw 'three' spots of moonlight on a table in a dark room, and passing her hand over them the spots remained on her hand until she left the room, and in 'three'

weeks she died. They told of lurid shapes, like coffins, passing before windows at night; and of one that was seen in a mirror instead of the owner's own face; and of the death-tick that gives warning on your head-board of what is to happen, and finally wound up with a fearful ghost story, which made my flesh creep, and cold chills run down my back. Just at that crisis, Jane declared, in startled tones, that my mother had returned and was coming to the kitchen. I sprang into the closet and right into the arms of a tall, white figure with ghastly face, and felt myself held fast. I gave one scream and fainted. The frightened Jane carried me to her room, while the terrified ghost dropped her sheet, rubbed the flour from her face and fled to her home. The other two girls assisted in bringing me to consciousness, when they explained the closet-apparition, and all vehemently declared there were no such things as ghosts, so anxious were they to undo what they had done.

"I was too indignant and humiliated to offer any remarks, but went to my room a wiser girl, believing more truly than the girls themselves that there really had never been any such things as ghosts. And so I was cured, or I thought I was, and scorned myself for having listened to such horrid tales." MRS. M. B. BUTLER.

EDITOR'S MISCELLANY.

WESTERN NEW YORK HORTICULTURAL SOCIETY.

The thirty-second annual meeting of this society will be held in the Common Council chamber in the city of Rochester, commencing on Wednesday, January 26th, at 11 o'clock A. M.

A general invitation is given to all who are interested in fruit culture or horticulture to attend the meeting and participate in the proceedings.

Kindred societies in this and other States are requested to send delegates, who will be kindly received and permitted to join in the discussions.

Contributions of new and rare fruits and such as may possess some special interest; also new implements and other objects of interest to the fruit-grower and horticulturist are solicited for exhibition.

The following papers will be read and discussed during the meeting:

Present and future of fruit culture in Western New York—John J. Thomas, editor *Country Gentleman*.

History of the Currant—Dr. E. Lewis Sturtevant, Director of the New York State Experiment Station.

Small fruits—Charles A. Green, editor *Green's Fruit Grower*.

Insects injurious to fruits, &c.—Dr. J. A. Lintner, New York State Entomologist.

Grapes and Grape culture on Lake Keuka, &c.—J. H. Butler, editor of the *Vineyardist*.

Potato sketches—E. S. Goff, of the New York State Experiment Station.

Roses—D. M. Dunning, Auburn.

Experiments with the kerosene emulsion on the aphid—Charles Little, of the Commercial Nurseries, Rochester.

The following questions have been suggested for discussion, and will be placed in the hands of the committee on business. A question box will also be kept on the Secretary's table, and opened at intervals.

What was the cause of the failure of the Apple crop the past season in Western New York?

What have we learned during the past year of insects and diseases injurious to fruit trees?

What is the best method of preventing the ravages of the various kinds of aphid which infest fruit and other trees?

What is the "honey dew" so injurious to Pear orchards the past season in some localities?

Is it safe to plant new orchards on the ground from which old ones have been recently removed?

Is it true that Apples and Pears are smaller and less perfect than in early days, and if so, why?

Can orchards be sufficiently manured by plowing in green crops; if not, how can their fertility be maintained?

Is not the Golden Russet of Western New York one of our most valuable varieties of Apples?

What has been learned of cold storage of fruits?

Are Apples worth as much by the pound for feeding domestic animals as Beets or Turnips, and are they not produced at less cost?

Can the Quince be grown profitably for market, and was the crop of 1886 superior to that of 1885?

As a rule, does not the retailer get nearly twice as much for fruits as the grower? The difference is too great; what can be done about it?

What is the best and quickest way to renew old nursery lands for nursery purposes? What is the best kind of soil and best mode of preparation for successful raising of healthy nursery trees?

What is the experience of the past year with new varieties of fruits—going through the entire list?

Has any one fruited *Prunus Simoni*? if so, what of it?

Can Grape culture be overdone? What varieties shall we plant for profitable vineyard culture?

Can horticulture be promoted by practical discourses, with illustrations in our schools, and by embellishing school grounds with trees and plants?

What are the most desirable six and twelve deciduous and evergreen ornamental trees for small lawns in Western New York and similar climates?

Can flowering shrubs be planted with good effect in small village and suburban lots; and if so, what arrangement is the best?

What are the best ten Hybrid Perpetual Roses for amateurs? Give lists.

What is the least expensive way for farmers to improve their home grounds?

Should this society hold an exhibition of Roses in June, and Chrysanthemums in November, with the fruits and vegetables of those seasons?

Should this society be made a State Horticultural Society and be incorporated?

MARSHALL P. WILDER.

Most of our readers will probably have been apprised of the death of this distinguished person before this notice appears. Although Mr. WILDER, for half a century, has been a prominent figure in many enterprises, it is as a promoter of horticulture only that we wish now to mention briefly a few points in his life.

The subject of our notice was born in New Hampshire, on the 22d of September, 1798, and, consequently, at the time of his decease, December 16th, he was in his 89th year. When a boy, in his fourteenth year, he visited Boston, and there saw a garden where various fruits were cultivated, which awoke in him a desire for fruit-growing, or, as he expresses it himself, "here I imbibed impressions which have followed me through life." Mr. WILDER, early in life, became interested in mercantile pursuits, and was still a member of a business firm at the close of life.

His interest in horticultural matters led him early to associate himself with the Massachusetts Horticultural Society, and of which he was an active participant; even in the weekly meetings of last winter he was present, taking part in the discussions and acting on committees. A few weeks since, Mr. W. gave to the public, through a letter addressed to Charles A. Green, an account of the formation of the American Pomological Society, of which he has always been the President. From this it appears probable, though it is not so stated, that he was a leading spirit in advancing the idea of a national society of pomology. His own statement is as follows:

"In regard to the origin of the American Pomological Society, the Massachusetts Horticultural Society, (of which I was then President,) in 1848 authorized me to correspond with societies and pomologists in other States, and, if approved by them, to call a National Pomological Convention in the city of New York, which was held in October of that year. This meeting was styled the American Congress of Fruit Growers, and was held under the auspices of the American Institute. This was the first national or-

ganization of the kind. It created a new interest in Pomological research throughout the country, which ever since has been constantly increasing. The next year another organization, the North American Pomological Convention, was united with this, and the combined societies in 1852 took the name of the American Pomological Society. The first officers of the American Congress of Fruit Growers were MARSHALL P. WILDER, President, and Samuel B. Parsons and Patrick Barry, of New York, and George W. Deacon, of New Jersey, Secretaries, with a Vice President from each of the States represented, only one of whom, H. W. S. Cleveland, now of Minneapolis, Minn., still lives. The second meeting was the next year in New York, and the third at Cincinnati, in 1850, since which time they have been held biennially in the leading cities of the North, South and West, and its next meeting is to be held in Boston, in September, 1887."

The arrangement for holding the meeting of the society in Boston this year was made so that Mr. WILDER could possibly be present if he should survive, as he was not able to attend at the session in Grand Rapids, Michigan, in 1885. Mr. WILDER has been honored during his life in many ways, and now, when full of years, respected by all and beloved by his kindred and friends, he has departed forever. His course is finished, and, yet, his works follow him. Thousands of our countrymen have been imbued with his ideas, and the advancement of horticulture is assured by the devotion of many kindred spirits.

The portrait of Mr. WILDER, presented in this number, represents him as he appeared several years since, as, we believe, it was taken about ten years ago. The difference in his signature at that time and as he has made it within the last year, as shown below, is quite striking. In communications received from him the past year, he has always signed as here shown, giving the year of his birth in connection with the present.

Marshall P. Wilder

1798-1886

NEW VARIETIES OF ROSES.

The new Roses which the French raisers are now sending out for the first time number sixty-seven, and thirty-five of them are Hybrid Remontants, or, as we style them, Hybrid Perpetuals. Their names, with the names of their originators, and a translation of their descriptions, is here supplied.

A. Drawiel, (Lévêque); plant vigorous; flower large, full, globular; color blackish crimson red, brightened with carmine.

Ali Pacha Cherif, (Lévêque); very strong grower; flowers large, full; color bright vermillion red, shaded and velveted with blackish purple.

Baronne de Saint-Didier, (Lévêque); vigorous; flowers large, full; color crimson shaded with lilac and purple, and with a whitish bloom.

Bijou de Cousnon, (Vigneron); very vigorous; flowers large, full; color a beautiful bright red with a velvety appearance.

Comte de Paris, (Lévêque); plant very vigorous; flowers large, full, well made; color crimson red toned with bright purple, brown, and very bright crimson.

Docteur Antonin Joly, (Besson); bush vigorous, derived from Baronne Adolphe de Rothschild; flowers large, very full, very well formed, cup-shaped; color brilliant rose with a foundation brightened with salmon.

Duc de Bragance, (Eugène Verdier fils aîné); shrub very vigorous, with a peculiar aspect, with straight, strong, erect shoots; flowers large, full, globular, well formed, borne in corymbs; color new, being a crimson red highly lighted up with violet.

Duchesse de Bragance, (Eug. Verdier fils aîné); vigorous; flowers extra large, full, well formed; color a beautiful satiny, soft rose shaded with bright rose.

Edouard Lefort, (Eug. Verdier fils aîné); shrub vigorous; flowers large, very full, well formed, posing well; color velvety scarlet crimson, shaded and spotted with purplish crimson.

Emile Masson, (Liabaud); very vigorous; flowers large, full; color velvety purple red.

Jean-Baptiste Casati, (Veuve Schwartz); vigorous; flowers large, very full, well formed; color a soft lilac rose with a whitish center.

Jules Barigny, (Eug. Verdier fils aîné); shrub very vigorous; flowers large, very full, of a beautiful convex form, and with a handsome pose; color carmine red with a lighter shade on the reverse side of the petals; very fragrant.

Jules Déroutille, (Liabaud); shrub very vigorous; flowers medium to large, full; color crimson purple red.

Louis Rollet, (Gonod); very vigorous, of remarkably rapid growth; flowers large, full; color purple red.

Madame Bois, (Levet Claude); shrub very vigorous, derived from the Victor Verdier section, very abundant bloomer; flowers very large, full, color a beautiful soft rose.

Madame Désir, (Pernet père); very vigorous; flowers large, nearly full, of the form of the Hundred Leaf Roses; color a beautiful bright rose shading into a salmon orange.

Madame Edouard de Bonnières, (Lévêque); shrub vigorous; flowers large, full; color amaranth red lightened up with carmine crimson.

Madame Edouard Michel, (Eug. Verdier fils aîné); vigorous; flowers extra large, full, with large petals, of beautiful form and good pose; color a beautiful bright, very fresh rose; tea fragrance.

Madame Leon Halkin, (Lévêque); shrub vigorous;

flowers large, full, globular; color bright crimson red shaded with purple.

Madame Lureau-Escalais, (B. Maindron); vigorous, derived from the Victor Verdier series; flowers large, full, well formed and with a beautiful pose; color a soft rose of even tint.

Madame Marcel Fauneau, (Vigneron); shrub vigorous; flowers very large, full, globular form; color lilac rose with a deeper center.

Madame Thiébaud aîné, (Lévêque); vigorous; flowers large, full, well formed; color bright cherry red with a silvery bloom.

Madame Treyve-Marie, (Liabaud); shrub very vigorous; flowers large, full; color a clear red shaded with orange, passing to bronze.

Mademoiselle de la Seiglière, (B. Maindron); vigorous, derived from La Reine; flowers large, full, very well formed, of globular cup-shape; color very soft silvery rose, very fresh and delicate.

Mademoiselle Marie Dauphin, (Liabaud); shrub very vigorous; flowers very large, full; color a soft rose, with a fresh lilac reflection at the center.

Monsieur Mat. Baron, (Veuve Schwartz); shrub vigorous; flowers large, full; color deep violet red.

Monsieur Richard, (Vigneron); vigorous; flowers large, full; color bright, velvety flame color.

Orgueil de Lyon, (Besson); vigorous; flowers medium, full, well formed; color velvety crimson brightened with vermillion.

Prince Henri d'Orléans, (Eug. Verdier fils aîné); shrub vigorous; flowers large, full, very finely formed, admirable in the half-opened bud; color clear carmine cherry.

Princesse Hélène d'Orléans, (Eug. Verdier fils aîné); vigorous; flowers large, full, of a very pretty rounded form, cup-shaped; color a beautiful, fresh, brilliant rose; very fragrant.

Princesse Louise d'Orléans, (Eug. Verdier fils aîné); vigorous; flowers large, full, well formed, and of very fine pose, petals large; color of the most beautiful, fresh, satiny rose, with a silvery bloom.

Souvenir du Capitaine des Mares, (Moreau-Robert); vigorous; flowers very large, full, globular; color bright cherry red shaded darker.

Stéphanie Charreton, (Gonod); bush very vigorous; flowers large, full, finely formed; color white with a light rose tint for the first three ranks of exterior petals, and those of the center a bright cherry rose.

Théodore Liberton, (Souper et Notting); vigorous; flowers large, full, form of the Hundred Leaf Roses; color bright carmine red, shaded with madder colored rose, reverse side purple.

Vicomtesse de Terves, (Moreau-Robert); very vigorous; flowers very large, full, well formed; color rose, with a soft bloom, a deeper shade at the center.

THE AMERICAN ANGLER.

This publication, sent out from 252 Broadway, New York, at \$3.00 a year, is issued weekly in magazine form of twenty-eight pages; it will, this year, contain each number, in addition to other illustrations, an engraving of a representative American fish, a portrait of which has not hitherto been published. These photo-likenesses will be accompanied by an angling and scientific biography of each fish. Mr. Wm. C. Harris, the editor, will commence a series of Talks to Young Anglers, which will be not only of practical interest to the beginner, but to the old angler, of whom it may be said that nature reverses her laws, for the veteran seems to get younger as the years grow apace.